REMARKS

Initially, in the Office Action dated December 3, 2003, the Examiner rejects claims 1-12, 14, 15 and 17-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,199,082 (Ferrel et al.) in view of U.S. Patent No. 6,061,697 (Nakao). Claims 13 and 16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ferrell et al. and Nakao in view of U.S. Patent No. 6,321,242 (Fogg et al.).

Examiner Interview

Applicants thank the Examiner and her Primary Examiner for the interview held on March 3, 2004. The Examiner agreed to consider the arguments made by Applicants' representative during the interview.

35 U.S.C. §103 Rejections

Claims 1-12, 14, 15 and 17-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ferrel et al. in view of Nakao. Applicants respectfully traverse these rejections.

Ferrel et al. was discussed in Applicants' previously-filed response. Nakao discloses an SGML document accessing unit to automatically create a partial editing document type definition DTD, according to a partial editing request for an SGML type document, that represents a restriction against partial editing to keep the document conformance to the DTD of an entire document. An SGML document editing apparatus edits a portion of the document to be edited corresponding to the restriction of the partial editing DTD that represents a restriction against partial editing due to the existing document structure and influence of other editing works

executing in parallel at the time when a partial editing request is issued. An extended content model is attached to every document element of a stored SGML document to reduce the cost of creating a partial editing DTD.

Regarding claims 1, 7 and 17-20, Applicants submit that neither Ferrel et al. nor Nakao, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of these claims of, inter alia, structured document managing that includes generating partial relationship data indicating relationship between an entity structure and a logical structure of an update object file after updating, generating edition result data in which partial relationship data indicating relationship between an entity structure and a logical structure of a file existing in the region of the logical structure subjected to edition is described in a character string form, or replacing the data content of the file by the generated edition result data. The Examiner asserts that Ferrel et al. discloses a partial relationship data generating step at col. 5, lines 29-41 and col. 10, lines 37-63. However, these portions of Ferrel et al. merely disclose the advantages of the separation of design and content and how it fits existing production processes and is advantageous for a publisher. This is not generating partial relationship data indicating relationship between an entity structure and a logical structure of the update object file after updating, as recited in the claims of the present application. Ferrel et al. merely discloses that the format and content can be separated and updated to a server in a MP system. In the MP system, the contents (object file) and the design (asserted logical structure of document) are stored as separate objects (see col. 8, lines 15-18) and then the contents can be updated independently of the

design. Thus, Ferrel et al. discloses that when the contents or entity structure are updated, only a title is updated but the design (logical structure) is not updated along with the relationship of contents. This is not updating the relationship data of the documents based on the partial relationship data of the updated content, as recited in the claims of the present application. Ferrel et al. merely teaches that the format and contents can be updated individually from each other. In contrast, according to the present invention, the relationship data indicating relationship between an entity structure and a logical structure of the registered document can be always updated when a content of a document file in the registered document is updated. When a selected content in the registered document is updated, the partial relationship data is generated and then, when the overall entity structure of the registered document is updated based on updated information included in the generated partial relationship data, the overall relationship data of the registered document is updated by updating the logical structure of the registered document corresponding to the updated content of the document file (see Applicants' specification, page 11, line 27 - page 12, line 11, page 39, line 22 - page 40, line 7 and page 41, lines 3-15).

The Examiner admits that Ferrel et al. does not disclose or suggest a logical structure or an entity structure, as recited in the claims of the present application, but asserts that these would have been obvious to a person of ordinary skill in the art based on the teachings of Ferrel et al., col. 4, lines 13-30 and col. 53, lines 1-63. However, Applicants assert that the disclosure of HTML or SGML tags, the title being acquired as the entire title or an individual section, and the content objects being graphics, audio, video, etc. do not disclose or suggest anything related to a structure

or specifically, a logical structure or an entity structure, as recited in the claims of the present application. These portions of Ferrel et al. merely disclose that the title can be broken and retrieved in pieces. This is not a logical structure. Further, the content objects are content and the fact that the content can be inserted into the title in an appropriate section is not an entity structure, as recited in the claims of the present application. Further, Ferrel et al. does not disclose or suggest a relationship between an entity structure and a logical structure, or that the logical structure are part of an update object file.

Moreover, the Examiner admits that Ferrel et al. does not disclose or suggest updating relationship data of a registered document, when the entity structure of the registered document is updated based on updated information included in the generated partial relationship data, by updating the logical structure of the logical document corresponding to the updated entity structure of the registered document, as recited in the claims of the present application, but asserts that Nakao teaches these limitations at col. 2, lines 18-35. However, these portions of Nakao merely disclose that conventional methods are used for examining the conformance to the DTD of the entire document to maintain the consistency of the document, and for parsing of an SGML document that has been partially updated to determine whether it conforms to the DTD. This is not updating relationship data of a registered document, when the entity structure of the registered document is updated based on updated information included in the generated partial relationship data, by updating the logical structure of the registered document corresponding to the updated entity structure of the registered document, as recited in the claims of the present

application. Nakao merely discloses utilizing the relationship between the logical structure of the SGML document and the DTD which describes the extent (limitation) of the logical structure for each document type of SGML documents. The relationship disclosed in Nakao has nothing to do with the relationship between an entity structure and a logical structure of the registered document as recited in the claims of the present application.

In addition, the Examiner asserts that Ferrel et al. discloses generating edition result data, as recited in the claims of the present application, at col. 10, lines 37-63 and col. 53, lines 1-63. However, these portions of Ferrel et al. merely disclose advantages to a publisher of separation of design and content, and the operation of a content acquisition subsystem, viewer subsystem and navigation subsystem. This is not generating edition result data in which partial relationship data indicating a relationship between an entity structure and a logical structure of a file existing in the region of the logical structure subjected to edition is described in a character string form, as recited in the claims of the present application. As noted previously, Ferrel et al. does not disclose or suggest an entity structure or a logical structure. Further, these portions of Ferrel et al. merely disclose that the design and the content data are independent from each other so that when the design is edited, the arrangement of the document may be changed but the contents of the document are not changed along with the editing design. In contrast, according to the present invention, when the logical structure is edited, an edition result data is generated and the data content is correspondingly updated based on the edition result data (see page 42, lines 24-27, page 43, line 5 - page 44, line 15, steps 1409-1412 in Fig. 12,

page 45, line 10 - page 46, line 11, and Fig. 13). Nakao does not disclose or suggest edition result data generating or corresponding data content updating as recited in the claims of the present application.

Regarding claims 2-6, 8-12, 14 and 15, Applicants submit that these claims are dependent on one of independent claims 1 and 7 and, therefore, are patentable at least for the same reasons noted regarding these independent claims. For example, none of the cited references disclose or suggest the generation of the partial relationship data in the partial relationship data generating step being made by analyzing the update object file after updating in the case where the update object file is a document file or a text file and by setting the data content after updating itself in the case where the update object file is neither a document file nor a text file.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of claims 1-12, 14, 15 and 17-20 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 13 and 16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ferrel et al. and Nakao in view of Fogg et al. Applicants have discussed Fogg et al. in Applicants' previously-filed response. Applicants assert that claims 13 and 16 are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted regarding this independent claim. For example, none of the cited references, taken alone or in any proper combination, disclose or suggest a digital signature applied to a file forming the registration object

document being registered together with the data content of that file. Applicants submit that Fogg et al. does not overcome the substantial defects noted previously regarding Ferrel et al. and Nakao.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 13 and 16 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing remarks, Applicants submit that claims 1-20 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 500.38010X00).

Respectfully submitted,

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